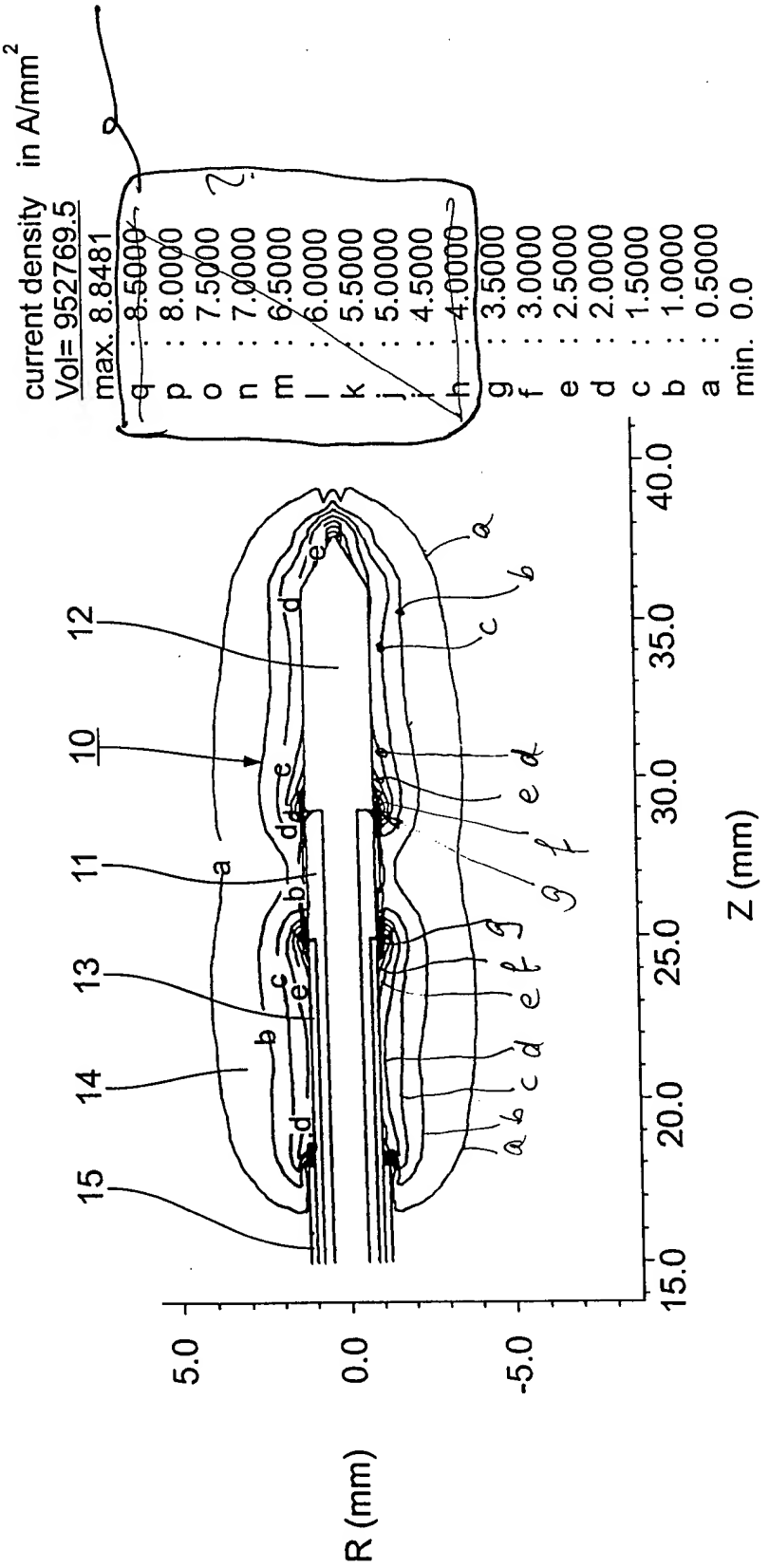
current density in A/mm²
Vol= 952769.5
max. 8.8481
q : 8.5000
p : 8.0000
o : 7.5000
n : 7.0000
m : 6.5000
l : 6.0000
k : 5.5000
j : 4.5000
h : 4.0000
g : 3.5000
f : 3.0000
e : 2.5000
d : 2.0000
c : 1.5000
b : 1.0000
a : 0.5000
min. 0.0
R (mm)
5.0
0.0
-5.0
Z (mm)
15.0
20.0
25.0
30.0
35.0
40.0
10
11
12
13
14
15

Fig. 1

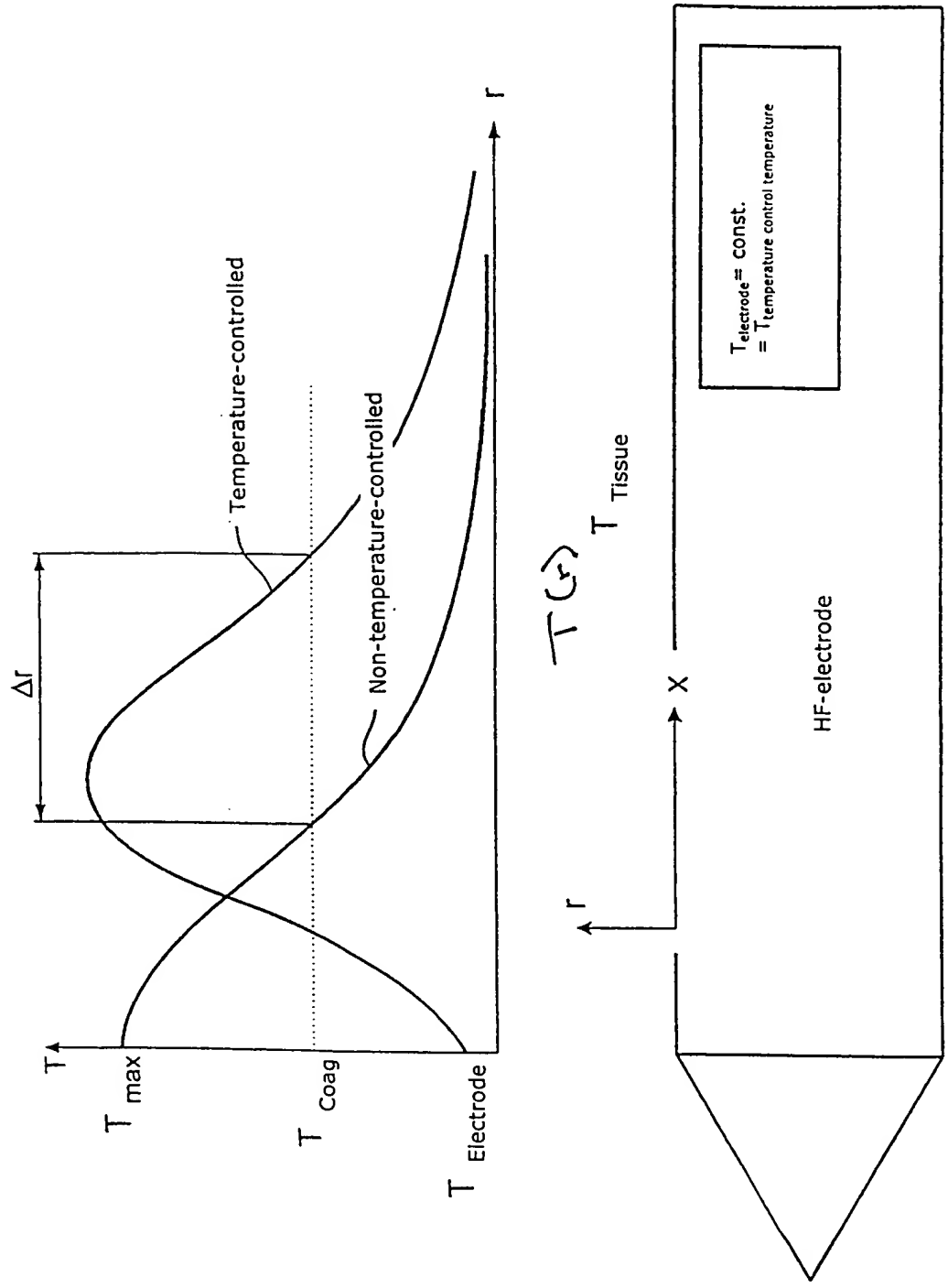
Temperature-controlled
Non-temperature-controlled
Δr
T
r
T max
T Coag
T Electrode
T (r)
T Tissue
r
X
HF-electrode
T electrode = const.
= T temperature control temperature

Fig.4

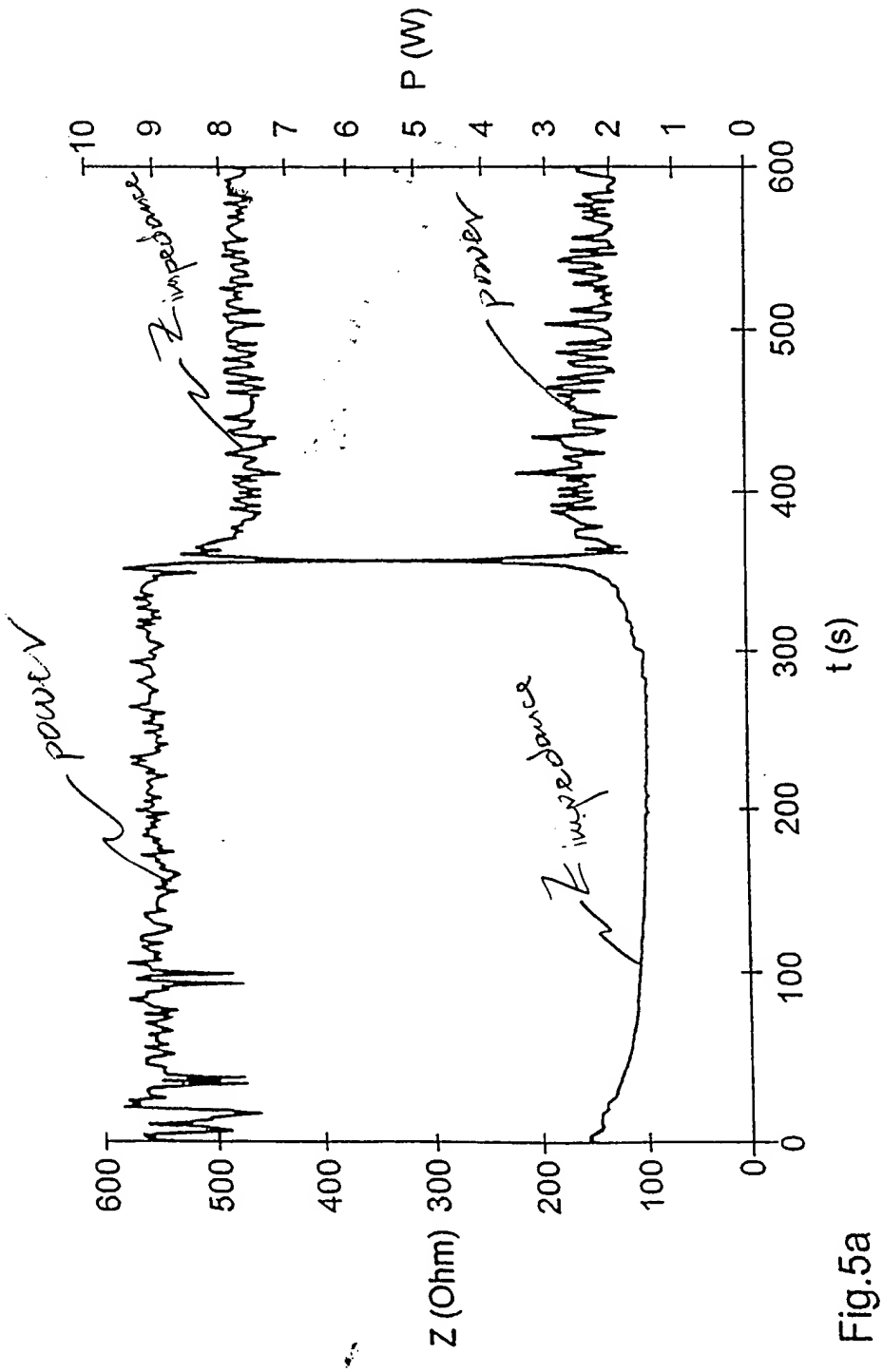
P (W)
10
9
8
7
6
5
4
3
2
1
0
600
500
400
300
200
100
0
Z (Ohm)
t (s)
power
Z impedance
power
Z impedance

Fig.5a

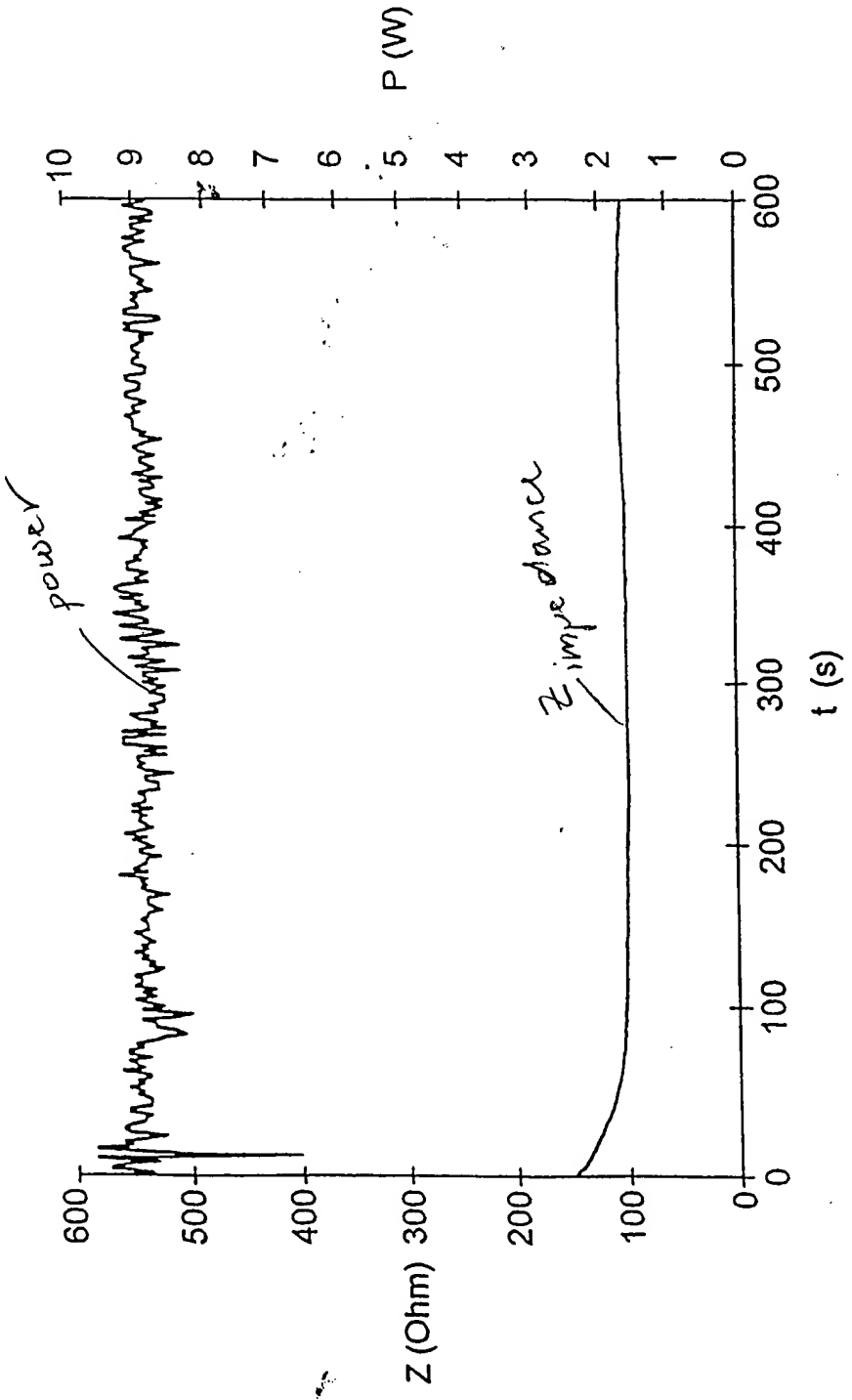
P (W)
10
9
8
7
6
5
4
3
2
1
0
power
Z impedance
600
500
400
300
200
100
0
Z (Ohm)
0
100
200
300
400
500
600
t (s)

Fig.5b

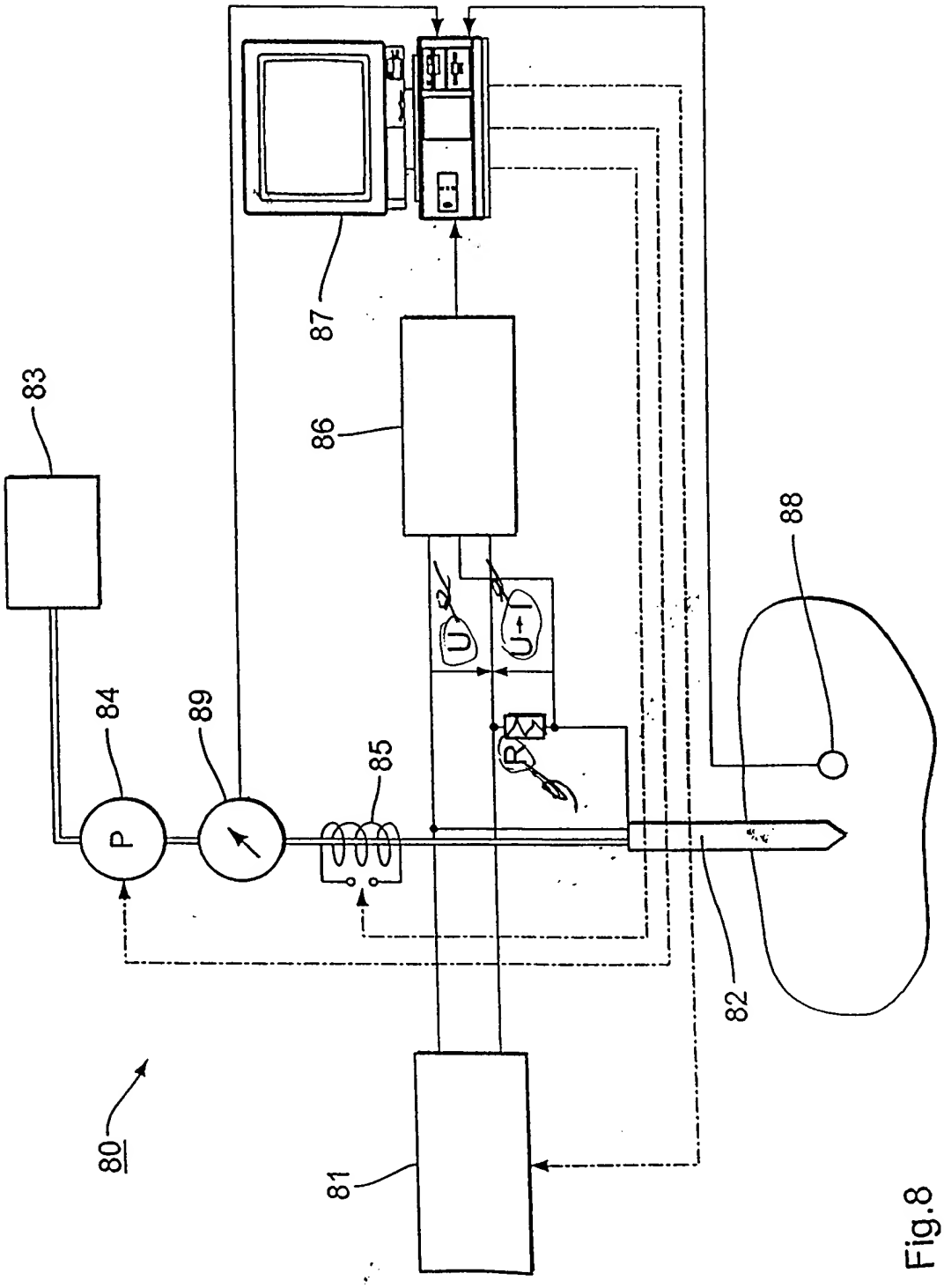

Fig.8

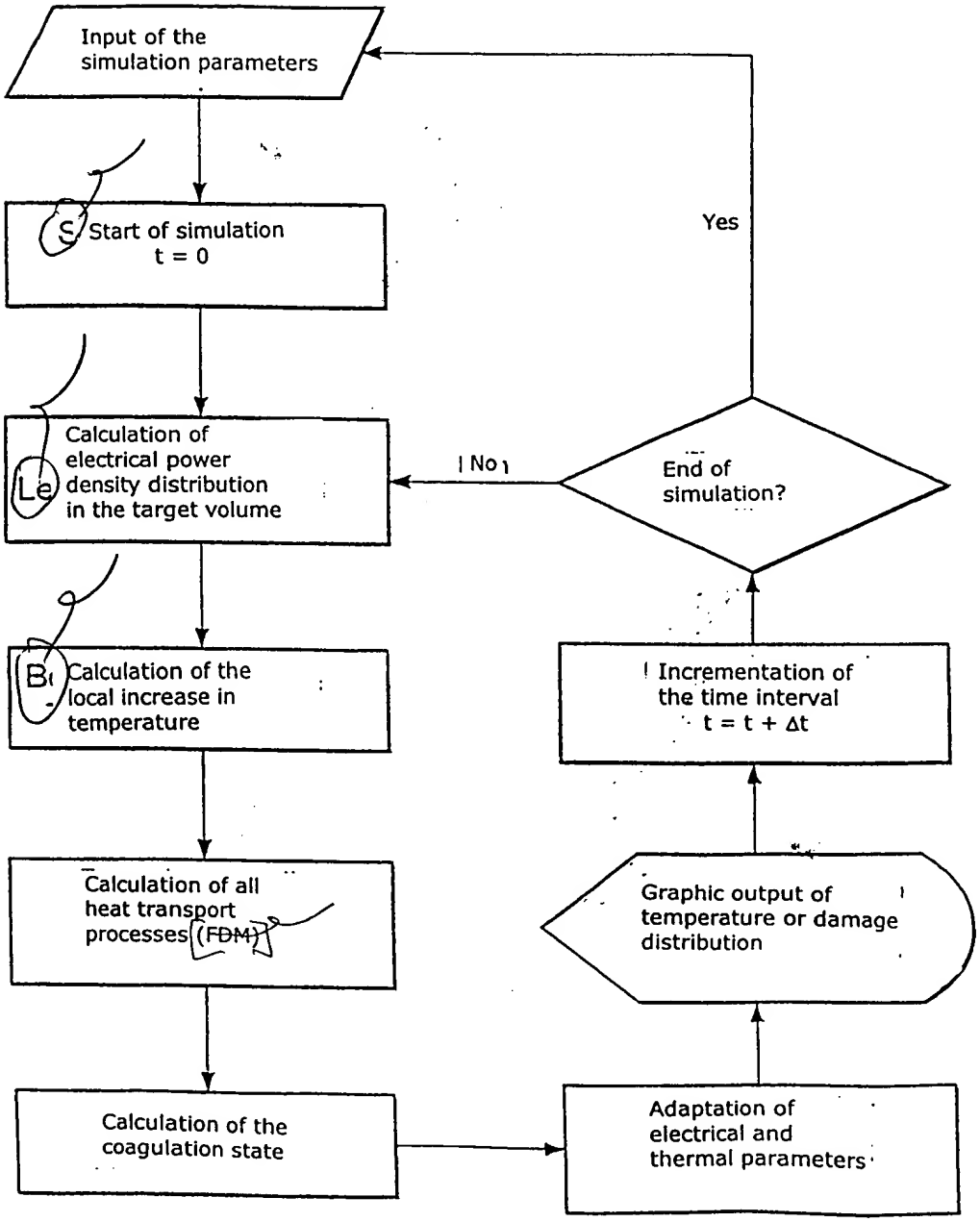
Input of the simulation parameters
Start of simulation t = 0
Calculation of electrical power density distribution in the target volume
Calculation of the local increase in temperature
Calculation of all heat transport processes (FDM)
Calculation of the coagulation state
Adaptation of electrical and thermal parameters
Graphic output of temperature or damage distribution
Incrementation of the time interval t = t + Δt
End of simulation?
No
Yes

Fig.9

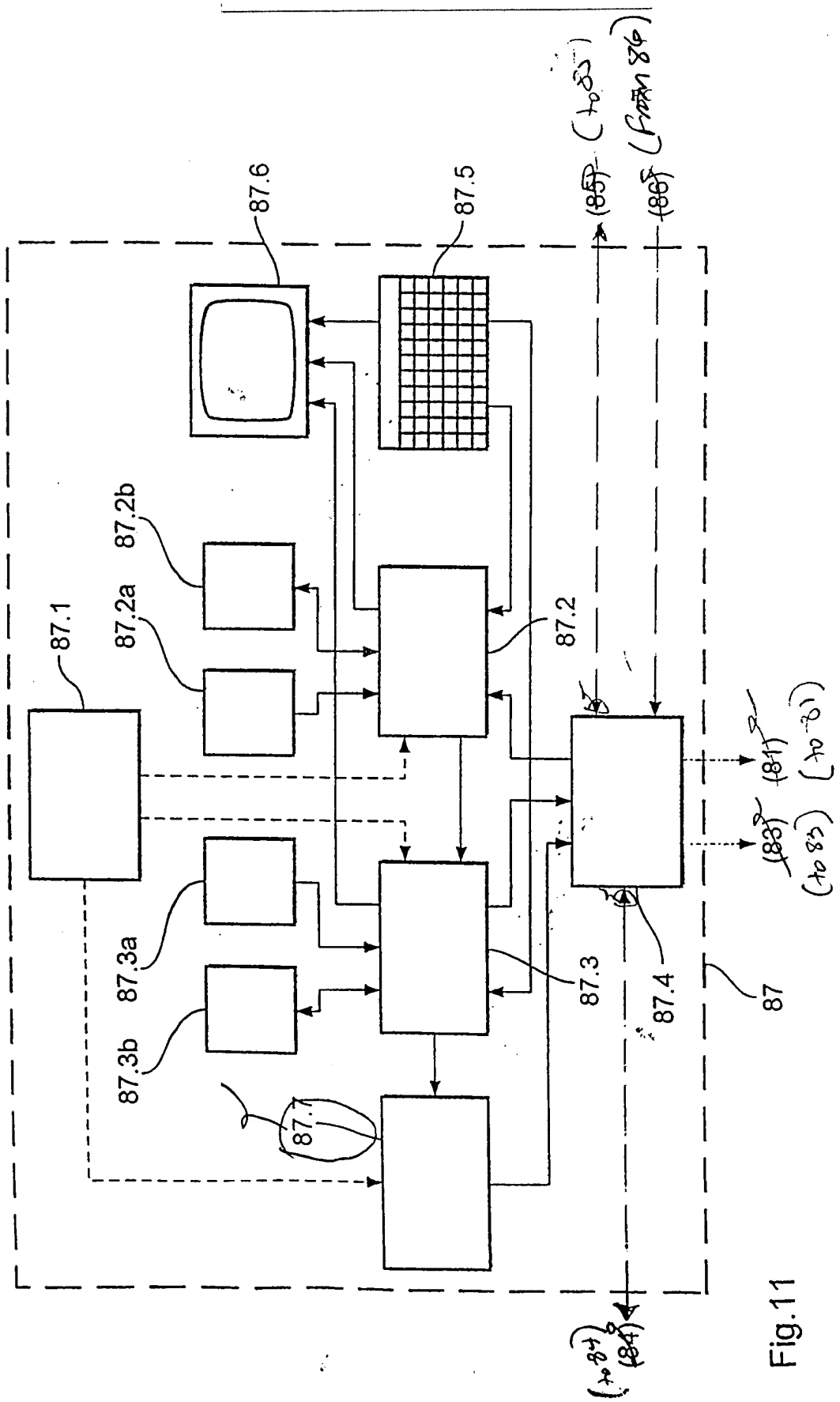
87.6
87.5
(85) (to 83)
(86) (from 84)
87.2b
87.2a
87.1
87.2
(81) (to 81)
(83) (to 83)
87.3a
87.3b
87.3
87.4
87
87.7
(84) (to 84)

Fig.11